

EMANUEL', N.M.; DRONOVA, L.M.; GAGARINA, A.B.; KONOVA'LOVA, N.P.

Critical phenomena in transplantable leucosis. Dokl. AN SSSR 155
no.1:220-223 Mr '64. (MIRA 17:4)

1. Institut khimicheskoy fiziki AN SSSR. 2. Chlen-korrespondent
AN SSSR (for Emanuel').

KAPLUN, N.A.; DRONOVA, L.M.; BELICH, Ye.M.; EMANUEL', N.M., prof.

Effect of direct current on the development of transplantable leukemia in mice. Biul. eksp. biol. i med. 60 no.7:102-104 J1 '65.
(MIRA 18:8)

1. Otdel khimicheskikh i biologicheskikh protsessesov (zav.- chlen korrespondent AN SSSR prof. N.M. Emanuel') Instituta khimicheskoy fiziki (direktor - akad. N.N. Semenov) AN SSSR i otdel bal'neofizioterapii (zav.- chlen-korrespondent AMN SSSR prof. A.N. Obrosoy) Tsentral'nogo nauchno-issledovatel'skogo institut kurortologii i fizioterapii (direktor - kand. med. nauk G.N. Pospelova) Ministerstva zdravookhraneniya SSSR, Moskva.

EMANUEL', N.M.; VERMEL', Ye.M.; RAPOPORT, I.A.; KRUGLYAK, S.A.; DRONOVA, L.M.;
OSTROVSKAYA, L.A.

Antieoplastic properties of powerful chemical mutagens (nitrosourea
derivatives). Dokl. AN SSSR 163 no.2:483-485 J1 '65. (MIRA 18:7)

1. Institut khimicheskoy fiziki AN SSSR. 2. Chlen-korrespondent AN
SSSR (for Emanuel').

L 23402-66

ACC NR: AP6014008

SOURCE CODE: UR/0219/65/060/007/0102/0104

AUTHOR: Kaplun, N. A.; Dronova, L. M.; Belich, Ye. M.---Belich, E. M.; Emanuel', N. M.---Emanuel, N. M. (Professor; Corresponding member AN SSSR); Parin, V. V. (Active member AMN SSSR)

ORG: Department of Chemical and Biological Processes /headed by Corresponding member AN SSSR, Professor N. M. Emanuel'/, Institute of Chemical Physics /directed by Academician N. N. Semenov/, AN SSSR (Otdel khimicheskikh i biologicheskikh protsessov Instituta khimicheskoy fiziki AN SSSR); Department of Balneological Physiotherapy /headed by Corresponding member AMN SSSR, Professor A. N. Obrosoy/, Central Scientific Research Institute of Health Resorts and Physiotherapy /directed by Candidate of medical sciences G. N. Pospelova/, Ministry of Public Health Services, SSSR, Moscow (Otdel bal'neofizioterapii Tsentral'nogo nauchno-issledovatel'skogo instituta kurortologii i fizioterapii Ministerstva zdravookhraneniya SSSR)

TITLE: Effect of direct current on the development of transplanted leukemia in mice

SOURCE: Byulleten' eksperimental'noy biologii i meditsiny, v. 60, no. 7, 1965, 102-104

TOPIC TAGS: bone marrow, mouse, electrophysiology, direct current, hematopoiesis

ABSTRACT: Investigations were conducted to determine the effect of different doses of direct currents on the development of leukemia. Eighty male mice with transplanted L₁ leukemia were under observation. The weight of the

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UDC: 615.843-03: 616-006.446-092.9+616-006.446-085.8437-092.0

L 23402-66

ACC NR: AP6014008

spleen, the number of leukocytes and hemocytoblasts in one square millimeter of blood, and the percent content of hemocytoblasts in the bone marrow of controls, and in the animals to which direct current was applied were studied. The current was applied to the experimental mice by placing electrodes on both shaved sides of the animals. The electrode placed on the right side was connected to the positive pole of a galvanizing apparatus; the electrode placed on the left side of the animals was connected to the negative pole. The current was applied at different intensities for various periods. Four series of experiments were carried out. The animals were sacrificed at different times. Examinations established that a direct current not only did not increase the weight of the spleen, but in some cases decreased it; it practically caused no change in the number of leukocytes and hemocytoblasts in the blood; neither did it have any effect on the number of hemocytoblasts in bone marrow. It was thus established that direct current, regardless of the dosage applied, has no effect on the development of transplanted leukosis. This paper was presented by V. V. Parin, Active member AMN SSSR. The authors thank N. V. Puchkov and N. A. Vinogradov for assistance in the work. Orig. art. has: 3 figures. [JPRS]

SUB CODE: 06 / SUBM DATE: 10Dec63 / ORIG REF: 008

Card 2/2 20

L 29185-66

ACC NR: AP6018848

SOURCE CODE: UR/0020/65/163/002/0483/0485

AUTHOR: Emanuel', N. M. (Corresponding member AN SSSR); Vermel', Ye. M.; Rapoport, I. A.; Kruglyak, S. A.; Dronova, L. M.; Ostrovskaya, L. A.

ORG: Institute of Chemical Physics, AN SSSR (Institut khimicheskoy fiziki AN SSSR)

TITLE: Antitumor properties²² of powerful chemical mutagens (nitrosourea derivatives)

SOURCE: AN SSSR. Doklady, v. 163, no. 2, 1965, 483-485

TOPIC TAGS: mouse, tumor, chemotherapy, aromatic hydrocarbon

ABSTRACT: The authors studied the effect of methyl-, ethyl-, and propyl-nitrosoureas (MNU, ENU, and PNU, respectively) on ascitic strains of mouse tumors (Ehrlich's carcinoma, sarcoma 37, and sarcoma 180) in leukemic mice (C57BL strain) and on solid rat tumors (sarcoma 45, Walker's carcinosarcoma, and sarcoma SSK). Two criteria were used to evaluate the compounds: (1) coefficient of inhibition k, which shows how much more slowly the tumor process develops in experimental animals as compared with the control; (2) percentage of inhibition of tumor growth. The results of the experiments showed that up to 100% inhibition was achieved by all three compounds, but the k values differed. Moreover, MNU and ENU increased the survival time of the animals by 4 days; PNU, by 9 days. Like the polycyclic hydrocarbons, the nitrosourea derivatives tested are highly carcinogenic as well as carcinostatic. Orig. art. has: 2 figures. [JPRS]

SUB CODE: 06, 07 / SUBM DATE: 02Mar65 / ORIG REF: 005 / OTH REF: 014

Card 1/1 BLG

S/075/63/018/001/002/010
EO71/E452

AUTHORS: Vinogradov, A.V., Dronova, M.I., Korovin, Yu.I.

TITLE: Chemico-spectrographic method for the determination
of admixtures in alkali metals

PERIODICAL: Zhurnal analiticheskoy khimii, v.18, no.1, 1963, 29-32

TEXT: The impurities are concentrated by extraction of 8-hydroxyquinolates with a mixture of butyl alcohol and chloroform (1:2) from an aqueous solution of a sample at a controlled pH (6 - 7 for manganese and nickel; 4 - 5 for tantalum, niobium, tin, iron and zirconium; 2 - 3 for molybdenum and tungsten) and cupferronates (niobium, tantalum, zirconium, titanium and lead) from a 20% hydrochloric acid solution with an addition of oxalic acid. The extract is mixed with pure copper oxide, evaporated and mixed with an appropriate quantity (on copper oxide added) of cobalt chloride solution (internal standard) dried and spectrographically analysed. The sensitivity of the method at a 100% enrichment is 1×10^{-4} to $3 \times 10^{-6}\%$, the accuracy 10 to 20%. The method can also be applied for the determination of other impurities (zinc, cadmium, scandium, Card 1/2

1 12282-65 EWT(m)/EPF(n)-2/EWP(t)/EWP(b) Pu-1. MP/1 7/12

Card 2/2

DRONOVA, M.I.; MINKOV, S.I.; LAPIN, V.V.

Closed abdominal trauma and acute appendicitis. Vest. khir. 94 no.1:
112-113 Ja '65. (MIRA 18:7)

1. Iz khirurgicheskogo otdeleniya (zav. - S.I.Minkov) Skopinskoy
gorodskoy bol'nitsy Ryazanskoy oblasti.

DRONOVA, N. F.

DRONOVA, N. F. -- "Investigation of the Rotation of the KDV-46 Diesel Engine in Connection with the Problem of Improving its Operational Characteristics." Min Higher Education USSR. Chelyabinsk Inst of the Mechanization and Electrification of Agriculture. Chelyabinsk, 1955. (Dissertation for the Degree of Candidate in Technical Sciences)

SOURCE Knizhnaya Letonis', No 6 1956

DEGTYAREV, Viktor Andreyevich; DRONOVA, Natal'ya Fedorovna;
ZHOTKEVICH, Tat'yana Sergeyevna; ZELENETSKAYA, L.V., red.;
SAYTANIDI, L.D., tekhn. red.

[Using multiple purpose hydraulic systems with separate units
and mounted devices] Kak pol'zovat'sia universal'nymi razdel'no-
agregatnymi gidravlicheskim sistemami i navesnymi ustroistvami.
Moskva, Izd-vo M-va sel'.khoz. RSFSR, 1961. 142 p.

(MIRA 15:4)

(Oil hydraulic machinery)
(Agricultural machinery)

ZAKHAROV, Ye.D.; DRONOVA, N.P.; NIKOL'SKAYA, L.Ye.

Investigating the diffusion of addition alloy elements in
aluminum alloys. Alum. splavy no.3:159-174 '64.
(MIRA 17:6)

ZAKHAROV, Ye.D.; GUR'YEV, I.I.; SOLOV'YEVA, V.V.; DRONOVA, N.P.;
GIL'DENGORN, I.S.; KHODAKOV, P.Ye.; BONDAREV, B.I.

Nonuniformity in continuously cast ingots and its effect
on the quality of semifinished products. Alum. splavy
no.3:371-382 '64. (MIRA 17:6)

ACCESSION NR: AT4037657

S/2981/64/000/003/0159/0174

AUTHOR: Zakharov, Ye. D.; Dronova, N. P.; Nikol'skaya, L. Ye.

TITLE: A study of alloying component diffusion in aluminum alloys

SOURCE: Alyuminiyevy*ye splavy*, no. 3, 1964. Deformiruyemy*ye splavy* (Malleable alloys), 159-174

TOPIC TAGS: aluminum alloy, aluminum A00, alloy V95, alloying component diffusion, Kirkendahl effect, homogenizing related diffusion, hot working related diffusion, diffusion analysis, diffusion pores

ABSTRACT: Sandwich strips (2 mm thick) were prepared, using various aluminum alloys (see Table 1 in the Enclosure) as cores and aluminum A00, an alloy of Al + 0.5% Mn or alloy V95 in 50% dilution with aluminum as the outer layers. Samples were homogenized at 500C for 6 hours or 1, 3, 4 or 10 days, then tempered 1 hour at 250C. Photomicrographs were analyzed to determine the diffusion of alloying components in the core. The results indicate that Kirkendahl's effect occurs in aluminum alloys, large pores of diffusion origin forming during prolonged heating of the metal to high temperatures. The occurrence of such pores can be promoted by liquation heterogeneity of the ingots, by thick layers of intermetallic phases, the local fusion of fusible components,

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ACCESSION NR: AT4037657

etc. Processes of heating or combined heating and hot working should be tailored either to avoid development of diffusion pores or to allow liquidation of such pores through self-diffusion. "Ye. F. Romanova did part of the photography." Orig. art. has: 1 table and 12 sets of photomicrographs.

ASSOCIATION: None

SUBMITTED: 00

DATE ACQ: 04Jun64

ENCL: 01

SUB CODE: MM

NO RIF SOV: 000

OTHER: 000

2/3

Card

ACCESSION NR: AT4037657

ENCLOSURE: 01

TABLE 1

Chemical composition of alloys used in the core layers of sandwich strips
(aluminum based)

Core alloy No.	Content of alloying element in %:				Reinforcing phase
	Cu	Mg	Zn	Si	
1	11.15	--	--	--	CuAl ₂
2	10.26	4.0	--	--	S
3	10.37	3.91	--	2.4	W(?)
4	--	3.65	--	2.24	Mg ₂ Si
5	--	3.61	19.8	--	MgZn ₂
6	--	--	20.2	--	Zn
7	--	3.64	--	--	Mg ₂ Al ₃
8	--	--	--	2.2	Si

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ACCESSION NR: AT4037660

S/2981/64/000/003/0194/0200

AUTHOR: Fridlyander, I. N.; Romanova, O. A.; Archakova, Z. N.; Gur'yev, I. I.;
Dronova, N. P.; Petrova, A. A.; Bychkova, Z. S.

TITLE: Preparation and testing of intermediate shapes from high-strength heat
resistant aluminum alloy VAD23

SOURCE: Alyuminiyevy*ye splavy*, no. 3, 1964. Deformiruyemy*ye splavy* (Malleable
alloys), 194-200

TOPIC TAGS: aluminum alloy, alloy VAD23, heat resistant aluminum alloy, high strength
aluminum alloy, alloy mechanical property, hot pressed rod, hot pressed section, hot
pressed strip, hot rolled sheet, cold rolled sheet, forged piece, double pressing

ABSTRACT: Immersion-cast ingots (diameter 260 mm) of alloy VAD23 (5.1-5.7% Cu, 1.2-
1.4% Li, 0.096-0.11% Cd, 0.60-0.7% Mn, 0.15-0.25% Ti) were hot pressed (430-450C)
into rods (intermediate diameter 127 mm or final diameter 20 mm), sections PR306-7,
strips with 25x210 mm cross section and pressed panels. The pieces were water quenched
from 525±5C, then aged 16 hours at 170C. Sheets 1.0, 1.5 and 2.0 mm thick were hot

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ACCESSION NR: AT4037660

rolled from strips to 6.0-5.5 mm, then cold rolled to desired thickness with intermediate annealing and finally heat treated (water quenched from 523+5C, aged 16 hours at 170+5C). Forgings (90 or 120x200x400 mm) were forged on a vertical press (deformation 65%, pre-heating 3 hours to 420-440C) from rods (diameter 180 mm) and heat treated as for sheets. Pressed shapes exhibited high tensile strength (66-70 kg/mm²) at a relative elongation of 3-4%. It was noted that double pressing (i. e., into intermediate diameter rods, then final shape) reduced the tensile strength and increased the plasticity. Mechanical properties of sheets and forgings were lower than those of the pressed shapes. "K. N. Fomin, N. S. Lebedeva, P. G. Reznik, N. Averkina, L. S. Zheltovskaya, Yu. A. Vorob'yev and N. N. Tyurin also took part in the work." Orig. art. has: 7 tables.

ASSOCIATION: none

SUBMITTED: 00

SUB CODE: MM

DATE ACQ: 04Jun64

NO REF SOV: 000

ENCL: 00

OTHER: 000

Card 2/2

~~VERHOFF, S. H.~~ DRONOVA, N. P.

ROSEN, S. M. and DRONOVA, N. P.

C. A. Vol. 37, 6231-4

"The Homogenization of Ingots of Al Alloys." Aviatsionnyyshlennost 1940, No. 11-12, 20-53; Khim. Reforat. Zhur. 4, No. 6, 90 (1941). The presence of a set of inter-metallic compds. is one of the principal reasons for the cracking of ingots of Al alloys on hot working. Results of numerous tests (rolling properties, mach. properties, microstructure) of the D16 alloys (Cu 4.2, Mg 1.5 and Mn 0.6%) and the D17 alloys (Cu 4.2, Mg 0.5 and Mn 0.6%) indicate a need for the homogenization of ingots before hot deformation.

137-1958-3-4918

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 3, p 66 (USSR)

AUTHORS: Fridlyander, I. N., Zakharov, Ye. D., Dronova, N. P.,
Solov'yeva, V. V., Petrova, A. A.

TITLE: An Investigation of Light-colored Crystallites in Aluminum Alloys
D16 and V95 (Issledovaniye svetlykh kristallitov v
alyuminiyevykh splavakh D16 i V95)

PERIODICAL: V sb.: Metallurg. osnovy lit'ya legkikh splavov. Moscow,
Oborongiz, 1957, pp 215-228

ABSTRACT: The nature of the distribution of light-colored crystallites
(LC), as well as their composition, was studied on ingots and on
pressed components made of alloys D16 and V95; their effect
on the mechanical properties of the alloy was investigated, also
methods by which they can be eliminated. In ingots made of alloys
D16 and V95, the LC are embedded in the central zone, whereas
in components manufactured by pressing, their position varies.
LC are seldom encountered in ingots 280 mm in diameter or less.
In the D16 alloy the LC exhibit a lowered Cu and Mg content.
The Cu content may decrease by 0.1 - 0.96 percent, the Mg con-
tent by 0.10 - 0.21 percent. The average values of the Cu and

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137-1958-3-4918

An Investigation of Light-colored Crystallites in Aluminum Alloys (cont.)

Mg concentrations decrease by 0.3 - 0.5 percent and 0.05 - 0.12 percent, respectively. In the V95 alloy the decrease in Cu content may amount to 0.07 - 0.14 percent, that of Mg to 0.12 percent, and that of Zn to 0.09 - 0.41 percent. The composition of the LC's corroborates their origination in the scum of the molten metal. The amounts of Cr, Mn, Te, and Si contained in the LC and in the adjacent areas of the basic metal do not undergo any significant changes. The LC contained in ingots and press-formed components made of the D16 and V95 alloys exhibited a decreased hardness. In the case of D16 alloy the σ_s values are 1.5 - 3.0 kg/mm² lower in the regions of bright spots, whereas the mechanical properties of the V95 alloy in the bright spots decrease more abruptly than the properties of D16 alloy.

G. S.

Card 2/2

Dronova, N. P.

137-1958-2-2695

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 2, p 71 (USSR)

AUTHORS: Fridlyander, I.N., Zakharov, Ye.D., Dronova, N.P.,
Solov'yeva, V.V.

TITLE: The Mechanism of the Formation of Intermetallic Compounds in
Ingots of Alloy V95 (an Aircraft Aluminum Alloy) (Issledovaniye
mekhanizma poyavleniya intermetallidov v slitkakh iz splava V95)

PERIODICAL: V sb.: Metallurg. osnovy lit'ya legkikh splavov. Moscow,
Oborongiz, 1957, pp 236-285

ABSTRACT: The basic cause of the formation of coarse Cr and Mn inter-
metallic compound inclusions in alloy V95 was found to be slow
cooling during the crystallization process. When a melt was
cooled slowly, the increase in the Cr and Mn concentrations and
especially the addition of small quantities of Ti produced an
enlargement of the intermetallic compound inclusions. Whether
the melt was cooled rapidly or slowly, the formation of inter-
metallic compound inclusions was not affected by the composition
of the original alloying element, by raising the temperature of
the heat from 730 to 780°, or by increasing the exposure time of
the molten metal at these temperatures from 1 to 5 hours. G.S.

Card 1/1

1. Alloys ingots--Applications 2. Compounds--Formation

KALYANOVA, M.P.; DYMKINA, S.Ya.; ~~DROKOVA, N.P.~~

Electrolytic sharpening of punches used for piercing spinnerette
holes. Sbor. st. NIILTEKASH no.3:164-165 '57. (MIRA 12:10)
(Electrolytic polishing)

MANSUROVA, I.D.; DRONOVA, V.I.; PANASENKO, M.S.

Lipo- and glycoproteins of the blood serum in various variants
of the course of Botkin's disease in comparison with liver function
tests and morphological changes in the liver. Trudy Inst. kraev.
med. AN Tadzh. SSR no.1:87-107 '62.
(MIRA 17:5)

MOLCHAGINA, R.P.; SOKOL, G.P.; ANTONOVICH, V.I.; MECHISLAVSKIY, Ya.A.;
DRONOVA, V.I.; PERISENKO, I.V.

Biochemical and histomorphological characteristics of chronic
experimental alcohol intoxication. Arkh. vop. pat. fiziol. no.2:178-
200 1973.
(MIRA 18:8)

DRONSKAYA, Ye.N.

Clinical aspects of poliomyelitis in vaccinated children.
Med. zhur. Uzb. no.1:38-40 Ja '62. (MIRA 15:3)

1. Iz Tashkentskoy detskoy infektsionnoy bol'nitsy No.3
(glavnyy vrach - A.P. Udalova).
(POLIOMYELITIS)

LYSKOV, Ye.P., DRONYAYEV, V.A.

Increasing the service life of exhaustor rotors. Metallurg 8 no.4:
11-12 Ap '63. (MIRA 16:3)

(Rotors—Maintenance and repair)

DRONYAYEV, V.I. (Tula)

Device for pulling the tape through buttons with eyes.
Shvein. prom. no.6:29-30 N-D '63. (MIRA 17:2)

BARKHATOVA, K.A.; DRONOVA, V.I.; PANEVA, L.I.; SHASHKINA, L.P.

Study of the open star cluster NGC 6819. Sbor.rab. po astron. no.1:3-
13 '63. (MIRA 18:1)

24.7500 (1144, 1454, 1482)

29681
S/181/61/003/010/003/036
B102/B108

AUTHORS: Sandulova, A. V., Dronyuk, M. I., and Rybak, V. M.

TITLE: Diffusion of indium into germanium of different degrees of purity

PERIODICAL: Fizika tverdogo tela, v. 3, no. 10, 1961, 2913-2917

TEXT: The authors investigated experimentally the diffusion parameters of In^{114} in dependence on structure and degree of purity of the germanium crystals. Tests were made with mono- and polycrystalline germanium having resistivities of 40, 2.8 and 0.007 ohm-cm. The tracer method combined with successive removal of thin layers was applied. The specimens were mechanically polished and chemically treated plane-parallel plates with n-type conductivity. In^{114} was dissolved in nitric acid and then applied to the Ge surface. The specimens were electrically heated in a pure argon atmosphere. Temperature was kept constant to $\pm 1^\circ\text{C}$. The diffusion coefficients were determined and plotted in diagrams ($\log D = f(1/T)$), Figs. 1,2). The respective functions for single crystals (Fig. 1) were

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S/181/61/003/010/003/036
B102/B108

Diffusion of indium into germanium...

found to be: $D_{40} = 16.37 \exp(-65,600/RT)$ $D_{2.8} = 3.1 \cdot 10^{-2} \exp(-50,900/RT)$ and $D_{0.007} = 2.9 \cdot 10^{-4} \exp(-39,900/RT)$. The subscripts indicate the resistivities. For the polycrystalline specimens (Fig. 2) these functions are $D_{40} = 0.36 \cdot 10^{-7} \exp(-23,200/RT) + 0.26 \exp(-55,600/RT)$ and $D_{0.007} = 0.37 \cdot 10^{-8} \exp(-15,550/RT) + 0.47 \cdot 10^{-3} \exp(-38,300/RT)$. The numerical values of D were between $0.34 \cdot 10^{-15} \text{ cm}^2/\text{sec}$ (700°C, 40 ohm-cm) and $109.70 \cdot 10^{-15} \text{ cm}^2/\text{sec}$ (900°C, 0.007 ohm-cm) for single crystals, and $2.29 \cdot 10^{-15} \text{ cm}^2/\text{sec}$ and $346.80 \cdot 10^{-15} \text{ cm}^2/\text{sec}$ for polycrystals. $\log D - f(\log \rho)$ were straight lines, the inclination of which decreased with increasing temperature. The salient points of the curves in Fig. 2 indicate that two different diffusion mechanisms take place in polycrystalline samples. The coefficients D_0 in the functions $D = D_0 \exp(Q/RT)$ and the activation energies Q depend significantly on the resistivity, i.e. on the degree of purity of the specimens; their free-electron concentrations at 300°K were found to be $9.9 \cdot 10^{17}$, $8.1 \cdot 10^{14}$ and $5.6 \cdot 10^{13} \text{ cm}^{-3}$ for the resistivities 0.007, 2.8 and

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Diffusion of indium into germanium...

29681
S/181/61/003/010/003/036
B102/B108

40 ohm-cm, respectively. Conclusions: (1) The diffusion coefficients depend on the degree of purity of the germanium: the higher the impurity concentration, the higher the diffusion coefficient. (2) The diffusion of indium into germanium takes place via the vacant lattice sites. (3) Indium diffusion into polycrystalline germanium at high temperatures takes place mainly through the crystal grains, at low temperatures mainly along the interfaces. There are 3 figures, 2 tables, and 12 references: 8 Soviet and 4 non-Soviet. The two references to English-language publications read as follows: W. C. Dunlap. Phys. Rev. 86, 4, 615, 1952; 94, 6, 1531, 1954; C. S. Fuller. Phys. Rev., 86, 1, 186, 1952.

ASSOCIATION: L'vovskiy politekhnicheskii institut (L'vov Polytechnic Institute)

SUBMITTED: March 13, 1961

Card 3/43

S/181/62/004/010/043/063
B102/B112

AUTHORS: Sandulova, A. V., and Dronyuk, M. I.

TITLE: Visualization of dislocations in silicon single crystals
when dissolved in vapors of other substances

PERIODICAL: Fizika tverdogo tela, v. 4, no. 10, 1962, 2917-2920

TEXT: The authors developed a new method of visualizing dislocations on the (111) and (100) planes of Si single crystals visible. The crystals, ground and polished in the ordinary way, were kept in quartz ampoules (10^{-5} mm Hg) for 20 - 40 min at 1000 - 1200°C together with a weighed portion of a solvent (Se, S, Te, I, or Br). In all experiments the vapor pressure in the ampoule was lower than the saturation vapor pressure at experimental temperature. With iodine and bromine as solvents the ampoules were evacuated at nitrogen temperature. In all cases the rate of dissolution of the Si crystals was higher than their evaporation rate in the vacuum. After the treatment the surfaces were studied microscopically. After a 20-min treatment in Se vapor (1100°C) the

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Visualization of dislocations in ...

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B102/B112

(111)-plane showed the same pattern as observed after etching with liquids, i.e., the action of vapor, like that of etching, causes grooves at the sites of dislocations. The depth of these grooves is proportional to the duration of the action of vapor. The bottoms of these figures are plane, broken by numerous uniformly oriented dislocation grooves in the form of equilateral triangles (40 min iodine, 1100°C, (111)plane). The site at which any individual linear dislocation emerges is found to be the common center of equilateral triangles superimposed on one another in the form of steps. The larger these triangles, the more strongly their sides are bent outward, so that the lowest are almost circular in shape. The dislocation grooves on the (100) planes are square in shape. The dissolution of Si in vapor takes place down to 800°C. This process can be accelerated by increasing the vapor pressure. There are 5 figures.

ASSOCIATION: L'vovskiy politekhnicheskii institut (L'vov Polytechnic Institute)


SUBMITTED: April 10, 1962 (initially) June 12, 1962 (after revision)

Card 2/2

S/185/62/007/003/007/015
D299/D301

AUTHORS: Sandulova, H.V., Dronyuk, M.I. and Shcherbay
TITLE: Diffusion of indium in copper protoxide
PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 7, no. 3, 1962,
289 - 292

TEXT: The results are given of an experimental determination of the diffusion parameters of indium in copper protoxide; both single crystals and polycrystalline specimens were investigated. The radioactive isotope In^{114} was the diffusant. The diffusion coefficients were determined by the method of successive removal of thin layers, followed by measurements of gamma-radiation activity. The temperature dependence of the diffusion coefficient was investigated at temperatures of 600 to 1050° C. In order to reduce experimental errors, the diffusion coefficient was measured on several specimens, and its values --averaged. For single crystals, the temperature dependence of the coefficient is expressed by the formula



Card 1/3

Diffusion of indium ...

S/185/62/007/003/007/015
D299/D301

$$D = 0.16 \times 10^3 \exp (-33500/RT). \quad (1)$$

The polycrystalline graph consists of 2 straight lines which are at a certain angle; this is an indication of 2 different diffusion mechanisms in polycrystalline specimens; the temperature dependence is expressed by the formula

$$D = 0.24 \times 10^{-7} \exp \left(- \frac{12400}{RT} \right) + 0.89 \times 10^{-5} \exp \left(- \frac{24800}{RT} \right), \quad (2)$$

where the first term corresponds to low temperatures. The single-crystal graph is a straight line; hence a single diffusion mechanism exists for both low- and high temperatures. In the case of polycrystalline specimens, the main contribution to the diffusion flow at low temperatures is made by migration through intercrystal layers, whereas at high temperatures the main factor is bulk diffusion. At equal temperatures, the diffusion coefficients in polycrystalline specimens are much higher than in single crystals. For comparison, the diffusion parameters of various elements (Cu, Ti, Ag, Zn) in copper protoxide, are listed in a table.

Carl 2/3

Diffusion of indium ...

S/185/62/007/003/007/015
D299/D301

Their diffusion parameters are close in value for both single- and polycrystals. This leads to the conclusion that the diffusion of these elements takes place through the vacancies. There are 1 figure, 1 table and 9 references: 6 Soviet-bloc and 3 non-Soviet-bloc. The references to the English-language publications read as follows: Sibbert, W. Castellan and W.J. Moore, J. Chem. Phys., 17, 1, 41, 1949; W. Moore, B. Selikson, J. Chem. Phys., 19, 1539, 1951.

ASSOCIATION:

L'vivs'kyi politekhnichnyi instytut (L'viv Polytechnical Institute)

SUBMITTED:

May 22, 1961

Card 3/3

S/020/62/143/003/020/029
B110/B101

AUTHORS: Sandulova, A. V., Bogoyavlenskiy, P. S., and Dronyuk, M. I.

TITLE: Preparation of solid solutions of the system Ge - Si from the gaseous phase

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 143, no. 3, 1962, 610-612

TEXT: A method for preparing solid solutions was elaborated which is based on crystallization from the gaseous phase by using selenium as solvent. Thus, it becomes possible to cultivate single crystals of solid solutions in the entire possible concentration range on the basis of germanium and silicon. During condensation from the vapor, isomorphous atoms react with each other still in the vapor phase. They form structural compounds and make possible formation and growth of mixed crystals. The composition of the structural compounds depends on the partial concentrations of the atom types in the gaseous phase and is given if the rates of transition of the atoms from the crystals into the vapor are known. At 1000-1200°C and a selenium vapor pressure of 13-15 atm, the rates of

Card 1/3

30

Preparation of solid solutions of the ...

S/020/62/143/003/020/029
B110/B101

dissolution of Ge and Si are closest to each other: $6.5 \cdot 10^{-6}$ and $5.2 \cdot 10^{-6}$ g/cm².sec, respectively. This was considered for the cultivation of single crystals of solid solutions. The weighed portions of Ge and Si required for a given composition of the solid solution, as well as a certain weighed portion of Se were filled into a small quartz ampul. The ampul was evacuated to 10^{-5} mm Hg and heated in an electric furnace for 2-5 days. The experiments were conducted at 10-15 atm Se vapor pressure and 1000-1250°C. The weights of Ge and Si corresponded to solid solutions, the composition of which changed stepwise by 5 atom %. The experiments were terminated on total dissolution of Ge and Si. Monocrystalline character, homogeneity and composition of the crystals obtained were investigated by X-ray analysis. On the Laue diffraction pattern of the crystal of a solid solution with 50 atom % Ge and 50 atom % Si, ray direction perpendicular to (100), symmetrical interference spots as well as clearly developed ellipses were ascertained, which proves the monocrystalline character. The lattice constants are inversely proportional (linear dependence) to the Si content, and are composed of the values of pure Ge and Si. Increase in resistivity with the Si content up to

Card 2/3

Preparation of solid solutions of the ...

S/020/62/143/003/020/029
B110/B101

200-300 ohm-cm was observed. Sulfur, selenium, tellurium and iodine, may also be used as solvent. Professor A. I. Andriyevskiy is thanked for his advice. There are 3 figures.

ASSOCIATION: L'vovskiy politekhnicheskii institut (L'vov Polytechnic Institute)

PRESENTED: November 30, 1961, by N. V. Belov, Academician

SUBMITTED: November 16, 1961

Card 3/3

L 19570-63

ACCESSION NR: AP3007498

EWP(q)/EWT(m)/EWP(B)/BDS

AFFTC/ASD Pad JD/HW
S/0181/63/005/009/2580/2586

AUTHOR: Sandulova, A. V.; Bogoyavlenskiy, P. S.; Dronyuk, M. I. 198B

TITLE: Growing technique and properties of thread and needle crystals of germanium, silicon, and their solid solutions

SOURCE: Fizika tverdogo tela, v. 5, no. 9, 1963, 2580-2586

TOPIC TAGS: silicon thread crystal, germanium thread crystal, silicon needle crystal, germanium needle crystal, thread crystal, crystal growing technique, crystal growing, needle crystal, gas phase crystal growing, bromine, silicon, germanium

ABSTRACT: A new method of growing crystals is described, based on crystallization from the gas phase with the aid of a solvent. By this method it is possible to grow monocrystals of different shapes, lengths, and cross sections having a high mechanical strength and an adequate degree of purity and perfection of structure. A quartz capsule 28 cm long and 2.6 cm in diameter, divided by a neck into two interconnecting chambers, was used for the process. The larger chamber contained single crystals of the substance to be crystallized.

Gord 1/3

L 19570-63

ACCESSION NR: AP3007498

together with the solvent substance (solid bromine, with iodine added in certain cases). The loaded capsule was evacuated in liquid nitrogen to a pressure of 10^{-5} mm Hg, sealed, and placed in a furnace in which the larger chamber was maintained at 950—1250C and the smaller chamber, at 800—1000C. Full dissolution of the mother crystals occurred within 40—60 hr. Two types of crystals were formed in the smaller "cold" chamber of the capsule, a polycrystalline layer and bunches of threads and needles. Individual threads were straight and uniform in cross section, with lengths up to 30 mm. No indications of twinning were revealed by Laue diffraction patterns taken from the junctions and bends. Elongation of needles occurs along the third-order axis; the cross section of these needles is hexagonal. The threads had a thickness of several microns and a round cross section. In the case of Si it was possible to exercise a certain amount of control for preferential growing of threads or needles by manipulating the solvent vapor pressure and temperature gradient. The thickness of threads depends to some extent on the length and diameter of the neck connecting the chambers. For example, to grow Si threads in a 2-cm capsule, the neck diameter was narrowed to 6—8 mm, and the length, to 4 cm. Measurement data

Card 2/3

L 19570-63

ACCESSION NR: AP3007498

on the mechanical properties of threads and needles reveal great strength and elasticity, without plastic deformation. The strength of threads of 16—28- μ diameter averaged about 200 kg/mm² and reached a maximum of 500 kg/mm² in certain cases. The specific resistivity was generally found to be considerably higher than that of the mother crystals, owing to the higher degree of purity attained in the recrystallization process. Orig. art. has: 7 figures and 3 tables.

ASSOCIATION: L'vovskiy politekhnicheskij institut (L'vov Polytechnic Institute)

SUBMITTED: 16Aug62

DATE ACQ: 14Oct63

ENCL: 00

SUB CODE: PH

NO REF SOV: 002

OTHER: 001

Card 3/3

SANDULOVA, A.V.; BOGOYAVLENSKIY, P.S.; DRONYUK, M.I.

Production of germanium and silicon single crystals from
the gaseous phase by the addition of a second component.
Dokl. AN SSSR 153 no.1:82-85 N '63. (MIRA 17:1)

1. L'vovskiy politekhnicheskii institut. Predstavleno
akademikom A.V. Shubnikovym.

ACCESSION NR: AT4040558

S/2564/64/004/000/0122/0124

AUTHOR: Sandulova, A. V.; Andriyevskiy, A. I.; Dronyuk, M. I.

TITLE: Forms of growth of germanium and silicon crystals grown from a gaseous solution

SOURCE: AN SSSR. Institut kristallografi. Rost kristallov, v. 4, 1964, 122-124

TOPIC TAGS: germanium, silicon, germanium crystal, silicon crystal, crystal growth, gas phase crystallization, germanium monocrystal, silicon monocrystal

ABSTRACT: Sulfur, selenium, bromine, tellurium and iodine were used as solvents in a study of the crystallization of germanium and silicon at 800-900 and 1000-1200C, respectively. Octahedrons with well developed (111) faces were the most frequent form among a great variety of crystal shapes obtained. Other forms included cubes with more or less pronounced octahedral faces and spherulites. The shape of the crystal could be changed by changing the solvent, its vapor pressure or the temperature. Lauegrams of the thread-shaped crystals demonstrated their monocrystalline nature. The simple forms

Card 1/2

ACCESSION NR: AT4040558

(011) and (013) commonly in germanium and silicon crystals grown from the gaseous phase by other methods were not observed. Orig. art. has: 4 figures.

ASSOCIATION: Institut kristallografi AN SSSR (Institute of Crystallography, AN SSSR)

SUBMITTED: 00

DATE ACQ: 02Jul64

ENCL:00

SUB CODE: IC, EC

NO REF SOV: 002

OTHER: 001

Card

2/2

~~DRONZHEVSKIY, V.M.~~
VANIN, Stepan Ivanovich, professor, 1890-1951; SOKOLOVA, D.V., redaktor;
~~DRONZHEVSKIY, V.M., redaktor;~~ ARNOL'DOVA, K.S., redaktor; ANKUDI-
NOV, A.M., retsenzent; VORONTSOV, A.I., retsenzent; KARASIK, N.P.,
tekhnicheskii redaktor.

[Forest phytopathology] Lesnaia fitopatologiya. Izd. 4-e, posmertnoe
(perer. i dop.). Pod obshchei red. D.V. Sokolova. Moskva, Goslesbum-
izdat, 1955. 416 p.
(Botany--Pathology) (MIRA 8:4)

DRONZIN, T., dots.

The organization and size of medical aid in an infantry division
in atomic warfare. Nauch. tr. vissh. med. inst. Sofia 39 no.7:227-233
'60.

1. Predstavena ot prof. Z. Mitsov, rukovoditel na Katedra "22".

(ATOMIC WARFARE)

IRONZIN, T.D.
CHANACHEV, Iv. S.; IRONZIN, T.D., (Med. polk.)

Experimental therapy of inhalation poisoning with phosgene-oxime.
Nauch. tr. Vissh. med. inst. Sofia 4 no.4:111-114 1957.

1. Predstavena ot Katedra 22. Zav. katedrata: prof. Med. polk. Z. Mitsov.
(PHOSGENE, rel. cpds.
phosgene-oxime pois. by inhalation in animals, eff. of drugs
on.)

DEONZIN, T.D. (Med. polk)

Organisation of medical aid in phosgene-oxime poisoning. Nauch. tr. Visssh. med. inst. Sofia 4 no.4:115-122 1957.

1. Predstavena ot katedra 22, Zav. katedrata: prof. Med. polk. z. Mitsov.
(PHOSGENE, rel. opda
phosgene-oxime mass pois., med. aid organiz.)
(FIRST AID
in phosgene-oxime mass pois.)

DROP Kazimierz

Standardizing activities of the Textile Institute. Przegl
wlokien 17 no. 1: Supplement: Biul inst wlokien 15 no. 1:
1-2 Ja '63.

Received from the Department of Surgery, University of Illinois, Chicago, Illinois.

Use of penicillin in the treatment of staphylococcal infections.
Am. J. Surg. 20 no. 29, 674-675, 1945.

1. Z III Kliniki Chirurgicznej AM w Krakowie (Pierwszy: doc.
dr. med. Mieczysław Polakowski z Wojskowego Instytutu Higieny
i Epidemiologii w Krakowie).

REZIN, M.G.; DROPACHEV, G.P.; DROBININ, Ya.I.; KOCHNEV, E.K.; GOLUBEV, M.S.

"Electromagnetic metal mixing in steel smelting arc furnaces" by
N.V.Okorokov. Reviewed by M.G.Rezin and others. *Elektrichestvo* no.3:
95-96 Mr '63. (MIRA 16:4)
(Electric furnaces) (Electromagnets) (Okorokov, N.V.)

DROZALIA, H.

"Before an Annual Convention", P. 131. (CNET IK, Vol. 6, No. 5, May 1953, Katowice, Poland)

SO: Monthly List of East European Accessions, (SEAL), IC, Vol. 4, No. 1, Jan. 1955, Uncl.

DROPALLA, H.

"Chemists at the 3d World Congress of the World Federation of Trade-Unions." p. 331
(~~Chemik~~ Vol. 6, no. 12, Dec. 1953 Katowice.)

Vol. 3, no. 6
SO: Monthly List of East European Accessions./Library of Congress, June 1954, Uncl.

DROPIEWSKI, J.; MORAWSKI, K.

"For Correct Technical Terminology in the Field of Agricultural Machinery."
P. 158. (WIADOMOSCI, Vol. 22, No. 3, Mar. 1954., Warszawa, Poland)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4,
No. 1, Jan. 1955 Uncl.

DROPPA, ANTON.

Demanovske jaskyne; sprievodca po Jaskyni slobody, Demanovskej ladovej jaskyni, Jaskyni mieru, Jaskni Okno a Pustej jaskyni. [Bratislava?] 1953. 66 p. (Edicia Cestovneho ruchu) [Demanova Caves; a guidebook to the Freedom Cave, Ice Cave, Peace Cave, Window Cave, and Deserted Cave. illus., fold. maps, bibl.]

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 10, October 1957. Uncl.

DROPPA, A.

DROPPA, A. Exploration of the Demanova caves. p.133.

Vol. 7, no. 3/4, 1955, GEOGRAFICKY CASOPIS, BRATISLAVA, CZECHOSLOVAKIA

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, No. 10,
Oct. 1956.

DROPPA, Anton

Demanovske jaskyne. Krasove zjavy Demanovskej doliny. (Demanova Caverns. Karst formations in the Demanova valley. German and Russian summaries, illus., bibl., tables) Bratislava, SAV, 1957. 289 p.

This is the first, strictly technical work, on these karst caverns known in Central Europe for a long time. It furnishes a clear picture of the Demanova caverns, their history, development, microclimate, and their animal and plant life. It does not limit itself to describe only the underground formations, but deals also with those on the surface as far as they connect with the others. This work on the Demanova caverns is the result of five years of field studies, performed in the framework of research studies of the Museum of the Slovak Karst in Liptovsky Mikulas. The work contains detailed maps of the caverns, which form its second part.

Bibliograficky katalog, CSR, Slovenske Knihy. Vol. VIII. 1957. No. 10. p. 309.

DROPPA, A.

The ice cave of Dobsina. p. 99.
(Geograficky Casopis, Vol. 9, no. 2, 1957. Bratislava, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 10, October 1957. Uncl.

DROPPA, A.

"Speleological Problems of the Cave of Bystra."

p. 75 (Krasý Slovenska, Vol. 34, No. 2, Feb. 1957, Bratislava, Czech slovakia)

GEOGRAPHY & GEOLOGY Periodicals

Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No. 11,
Nov. 1958

DROPPA, A.

Aragonite cave at Ochtina.

p. 169 (Geograficky Casopis) Vol 9, no. 3, 1957. Bratislava, Czechoslovakia.

SO: Monthly Index of East European Accessions (EEAI) LC, Vol 7, no. 1, Jan 1958

DROPPA, A.

Discoveries inside the "Kresanica" Chasm in the Liptov Tatra Mountains.

p. 190 (Geograficky Casopis) Vol 9, no. 3, 1957. Bratislava, Czechoslovakia.

SO: Monthly Index of East European Accessions (EEAI) LC, Vol 7, no. 1, Jan 1953

DROPFA, A.

Karst phenomena in the northeastern part of Tribec.

p. 158 (CESKOSLOVENSKY KRAS) Vol. 10, no. 4, 1957,
Praha, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No. 3,
March 1958

DROPPA, Anton

Correlation of river terraces and horizontal caverns. Geol
prace 64:93-96 '63.

1. Speleological Worksite of the Slovak Academy of Sciences,
Liptovsky Mikulas.

DROPPA, A.

Ice caves of Czechoslovakia. Peshchery no.4:85-94 '64.

(MIRA 18:5)

1. Chekhoslovatskaya Akademiya nauk, Geograficheskiy institut
Slovatskoy Akademii nauk, Speleologicheskoye otdeleniye v g.
Liptovskiy Mikulash.

DROPPA, Anton

Examination of Vah River terraces in the central part of the Liptov
Basin. Geogr cas SAV 16 no.4:313-325 '64.

DROPPA, D.

Mining coarse brown coal seams. p. 227.

TECHNICKA PRACA, Bratislava, Vol. 7, no. 5, June 1955.

SO: Monthly List of East European Accessions, (GEAL), IC, Vol. 4, no. 10, Oct. 1955,
Uncl.

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DROPPA, D.

Mining in thick seams of lignite. p. 337

TECHNICKA PRAGA. Czechoslovakia Vol. 7, No. 8, Aug. 1955

Monthly List of East European Accessions (EEAI), LC., Vol 8, No. 9, September 1959
Uncl.

DROPPA, J.

New methods of anesthesia of the respiratory tract with special reference to aerosol anesthesia. Cesk. otolar. 1 no. 2:74-79 1952. (GLML 24:1)

1. Of the ORL Clinic (Head—Docent Jan Lajda, M.D.) of Slovak University, Bratislava.

Droppa, J.
Excerpta Medica 8/5 Sec 3 May 54 Endocrinology

772. DROPPA J. and KOLLÁROVÁ F. Klin. pre Chor. ušné, nosné a krčné, SU, Bratislava. * Prípad aberantnej strumy koreňa jazyka. A case of aberrant thyroid at the root of the tongue ČSL.OTOLAR.(Praha) 1953, 2/3 (154-161) illus. 2 (XI, 3)

DROPPA, J. (Bratislava, KUNZ, Zochova, 18/b); KAVCOVA, E.; SEKEROVA, M.;
STERNISKO, M.

Hearing test in braziers. Lek.obzor 3 no.10:597-605 1954.

1. Z Ontologickej kliniky SU v Bratislave.
(OCCUPATIONAL DISEASES,
hearing disord. in braziers)
(HEARING DISORDERS,
in braziers)

~~DROPPA, J.~~

KOLAROVA, Frida, Dr.; ~~DROPPA, Jan, Dr.~~; BREZINA, Rudolf, Dr.

A case of herpangina with positive virus isolation. Ces. lek.
cesk. 93 no.51-52:1407-1411 24 Dec 54.

1. Z kliniky otolaryngologickej SU v Bratislave, prednosta doc.
Dr. Jan Lajda (for Kolarova, Droppa) 2. Z virologickeho Ustavu
AV v Bratislave, prednosta akademik prof. Dr. Dyonyz Blaskovic
(for Brezina)

(HERPANGINA, virus
isolation of Coxsackie virus)
(COXSACKIE VIRUSES, infections
herpangina, isolation)

DROPPA, J.; CUNDERLIK, J.

Technic of modern bronchoscopy. Bratisl. lek. listy 35 no.5:
280-287 1955.

1. Z ORL kliniky LFUK v Bratislave, predn. doc. MUDr. J. Lajda,
a z KTD v Pod. Biskupiciach, predn. MUDR. K. Virsik.
(BRONCHOSCOPY,
technic.)

DROPPA, Jan

A glass cigarette holder in the right bronchus. Cesk. otolar. 7 no.5:
265-268 Oct 58.

1. OUNZ v Partizanskem, riaditel Dr. Alexander Papp.
(BRONCHI, for. bodies,
cigarette holder (Cz))

DROPPA, Jan

Isolated fixation of the incus and cholesteatoma suppuration. Cesk.
otolar. 10 no.6:322-325 D '61.

1. Otolaryngologické oddelenie nemocnice s poliklinikou - OUNZ v Nitre,
prednosta dr. Jan Droppa.

(CHOLESTEATOMA pathol) (OTITIS MEDIA pathol)
(EAR OSSICLES pathol)

CERNACEK, J., DrSc.; DROPPA, J.; WAGNEROVA, M.

The relationship between the blood electrolyte level and the prognosis of cerebrovascular accidents. Bratisl. lek. listy 45 no.6:324-329 31 Mr '65

1. Neurologicka klinika Lekarske fakulty University Komenskeho v Bratislave (veduci akademik Slovenskej akademie vied J. Cernacek, DrSc.).

DROPPA, J.

Experience in conservative surgical treatment of laryngeal carcinoma. Bratisl. lek. listy 45 no.5:309-313 15 S '65.

1. ORL oddelenie nemocnice s poliklinikou v Nitre (veduci MUDr. J. Droppa).

ACCESSION NR: AT4020703

S/0000/63/000/000/0114/0117

AUTHOR: Nikolayev, A. F.; Daniel', N. V.; Drozdova, T. B.

TITLE: Preparation and properties of poly-N-vinylacetamide

SOURCE: Karbotsepnny^{*ye} vy^{*sokomolekulyarny^{*ye}} soyedineniya (Carbon-chain macromolecular compounds); sbornik statey. Moscow, Izd-vo AN SSSR 1963, 114-117

TOPIC TAGS: polyvinylacetamide, polyvinylacetate, hydrophilic property, polarity, thermal stability, vitrification, phthalylhydrazide, polyvinylamide, polymerization

ABSTRACT: Poly-N-vinylacetamide ($[\eta] = 1.07$) was obtained by treating the phthalyl-, hydrazide salt of polyvinyl amine (prepared by polymerization of N-vinylphthalimide) with acetic anhydride, after which its main physical and mechanical properties were determined. The properties of poly-N-vinyl-acetamide and polyvinyl acetate, differing from one another only in the nature of one of the atoms on the side chain, were compared. The substitution of the ester group by the NH group was found to result in products which have good hydrophilic properties, higher polarity, increased hardness, high thermal stability and a higher vitrification temperature. The conditions of the preparation of poly-N-vinylphthalimide and the phthalylhydrazide salt of polyvinylamine and the conditions for its hydrolysis with hydrochloric acid, are described in detail and the experimental data are tabulated.

Card 1/2

ACCESSION NR: AT4020703

Orig. art. has: 2 tables.

ASSOCIATION: Leningradskiy tekhnologicheskii institut im. Lenseveta (Leningrad Technological Institute)

SUBMITTED: 28Apr62

DATE ACQ: 20Mar64

ENCL: 00

SUB CODE: OC

NO REF SOV: 004

OTHER: 001

Card 2/2

MANSKAYA, S.M.; DROSDOVA, T.V.; KRAVTSOVA, R.P.

Forms of germanium compounds with organic matter of coal. *Geokhimiya*
no.2:188-197 F '65. (MIRA 18:6)

1. Institut geokhimi i analiticheskoy khimii imeni Vernadskogo
AN SSSR, Moskva.

SOV/84-58-10-12/54

AUTHOR: Droshchenko, I., Unit Commander

TITLE: Air Line Network Expanding (Rastet set' aviatsionnykh liniy)

PERIODICAL: Grazhdanskaya aviatsiya, 1958, Nr 10, p. 7 (USSR)

ABSTRACT: The author tells of the expansion of local air networks in Belorusskaya SSR, which tripled since 1956. Two new passenger air lines went in operation in Mogilevskaya oblast, two more will open in 1959. Planes are usually loaded to full capacity; the local press and radio carry announcements about flight schedules. The annual plan in passenger transportation was overfulfilled 160% by 1 October 1958.

Card 1/1

CHELYSHEV, N.A.; DROSHCHINSKIY, V.M.; DARUSHIN, R.I.; KRITININ, I.A.;
PSHENICHNOV, P.I.; KUCHKO, I.I.

Deformation of the metal in T-shaped passes during the rolling
of R-50 type rails. Stal' 24 no.11:1013-1016 N '64.

(MIRA 18:1)

1. Kuznetskiy metallurgicheskiy kombinat.

[illegible]

CHUISTOV, V.M., kand. ekon. nauk; CHERNENKO, M.S.; KRASNOKUTSKAYA,
O.I. [Krasnokuts'ka, O.I.]; DROSOVSKAYA, L.I. [Drosovs'ka, L.I.];
MOKIYENKO, B.F.; DARAGAN, M.V. [Darahan, M.V.]; OGANYAN, G.A.
[Ohanian, H.A.]; TERESHCHENKO, I.P.; KRUGLIKOV, B.I. [Kruhlikov,
B.I.]; KOROID, O.S., otv. red.; IVAN'KOV, M.D., red.;
KADASHEVICH, O.O. [Kadashevych, A.A.], tekhn. red.

[Socialist reproduction of the means of production] Sotsiali-
stychne vidtvorennia. Kyiv, Vyd-vo Akad. nauk URSR, 1962. 298 p.
(MIRA 15:12)

1. Akademiya nauk URSR, Kiev. Instytut ekonomiky. 2. Chlen-
korrespondent Akademii nauk Ukr. SSR (for Koroid). 3. Institut
ekonomiki Akademii nauk Ukr. SSR (for all except Koroid, Ivan'kov,
Kadashevich).

(Economics)

TERESHCHENKO, I.P.; MOSKVIN, O.I.; DARAGAN, M.V.[Darahan, M.V.];
 ANISIMOV, V.P.; YARMOLINSKIY, M.R.[Iarmolyns'kyi, M.R.];
 BULGAKOV, P.S.[Bulhakov, P.S.]; KUTS, V.K.; KASHPUR, A.V.;
 VASILENKO, G.K.[Vasylenko, H.K.]; KUKOLEV, V.D.[Kukoliev,
 V.D.]; SIGOV, S.G.[Sihov, S.H., deceased]; NAGIRNYAK, P.A.
 [Nahirniak, P.A.]; VETCHINOV, I.A.[Vietchynov, I.A.];
 ZADOROZHNYI, V.K.; DROSOVSKAYA, L.I.[Drosovs'ka, L.I.];
 SHKITINA, M.I.; PROSHCHAKOV, O.M.; MOKIYENKO, B.F.
 [Mokiienko, B.F.]; GOLOVACH, A.V.[Holovach, A.V.];
 IVANITSKIY, I.V.[Ivanyts'kyi, I.V.]; KOZAK, V.Ye.;
 BORYAKIN, V.M., red.izd-va; NESTERENKO, O.O., glav. red.;
 DAKHNO, Yu.B., tekhn. red.

[National income of the Ukrainian S.S.R. during the period
 of the large-scale building of communism] Natsional'nyi
 dokhod Ukraini'koi RSR v period rozhornutoho budivnytstva
 kommunizmu. Red.kol.: O.O.Nesterenko ta inshi. Kyiv, Vyd-
 vo AN URSR, 1963. 333 p. (MIRA 16:12)

1. Akademiya nauk URSR, Kiev. Instytut ekonomiky.
 (Ukraine---Income)

BORKOWSKI, Boguslaw; DROST, Krystyna

Presence of alkaloids in some species of genus *Kochia* L.
Acta Pol. pharm. 22 no.2:181-184 '65

1. Z Katedry Farmakognozji Akademii Medycznej w Poznaniu
(Kierownik: doc. dr. Z. Kowalewski).

DROSTA, Z.

Verov. Dostupnost: 1961, 1962, 1963.

5

10. "Novi Poljudski Aparat", Z. Drosta, 1961, 1962, 1963.
11. "The Investigation of Isotopes", Z. Drosta, 1961, 1962, 1963.
12. "The Foreign Ambassadors of the Czech Republic in the Soviet Union", Z. Drosta, 1961, 1962, 1963.
13. "The Foreign Ambassadors of the Czech Republic in the Soviet Union", Z. Drosta, 1961, 1962, 1963.
14. "The Foreign Ambassadors of the Czech Republic in the Soviet Union", Z. Drosta, 1961, 1962, 1963.

SOV/169-59-3-2208

Translation from: Referativnyy zhurnal, Geofizika, 1959, Nr 3, p 21 (USSR)

AUTHOR: Droste Sofiya

TITLE: The Angular Density Distribution of Energy Radiated From the Source

PERIODICAL: Byul. Soveta po seysmol. AS USSR, 1957, Nr 6, pp 100 - 104

ABSTRACT: The frontal energy distribution of space waves is determined taking into account the direction of the forces in the earth-quake source. V.I. Keylis-Borok's equations for displacements are used (Izv. AN SSSR, Ser. geofiz., 1951, Nr 6). The curves of equal energy densities are computed for different types of sources (simple force, dipole with and without moment) and for different directions of the forces in the source in respect to the earth's surface (0° and 45°).

S.D. Kogan

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Geophys. Inst., Polish Acad. Sci, Warsaw (✓)

DROSTE, Z.

The angular distribution of the density of energy in seismic waves. p. 241.
(Przegląd Geofizyczny, Vol. 1, No. 3/4, 1956, Warsaw, Poland)

SO: Monthly List of East European Accessions (FEAL) LC, Vol. 6, No. 8, Aug 1957. Uncl.

DROSTE, Z.

DROSTE, Z. The angular distribution of the energy density in seismic waves.
In English. p. 205. Vol. 4, no. 4, 1956. Warszawa, Poland
Acta Geophysica Polonica

SOURCE: East European Accessions List (EEAL) Vol. 6, No. 4—April 1957

DROSTE, Z.; TEISSEYRE, R.

The mechanism of earthquakes in terms of the dislocation theory. p.3.

PRZEGŁAD GEOFIZYCZNY. Warszawa, Poland. Vol. 4, no. 1, 1959.

Monthly List of East European Accessions (EEAI), IG. Vol. 6, No. 9, September 1959
Uncl.

3(5)

AUTHORS:

Droste, Z., Gibowicz, S., and Hordejuk, J. POL/26-7-2-4/18

TITLE:

Analysis of the First Movements of the Seismic Waves
Recorded on Seismographs

PERIODICAL:

Acta geophysica polonica, 1959, Vol 7, Nr 2, pp 136-
164 (POL)

ABSTRACT:

New problems developing in modern seismologic science require in many cases accurate knowledge of the true values of the amplitudes and periods of the first recorded movements of the seismic wave. These values are, as a rule, strongly deformed by instruments. Complete elimination of these distortions by computation is impossible at present owing to our lack of knowledge of the analytical shape of true ground movement. From recent research work it appears that the frequency characteristics computed for first ground vibrations do not show major dissimilarities. In order to simplify computation, a sinusoidal form of the ground vibrations will therefore be assumed in this investigation. Recent experimental material


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POL/26-7-2-4/18

Analysis of the First Movements of the Seismic Waves Recorded on
Seismographs

confirm the correctness of such an assumption. The purpose of this investigation is to examine the deformations in periods and first amplitudes caused by seismographs of various types. Two types of seismographs were examined. For the first type, seismographs with mechanical recording, the character of period and amplitude deformations in the first movement is shown in figure 15, the seismograph used being one with a free vibration period of 6 seconds and a damping constant of 0.1. The other type of apparatus investigated is the seismograph with galvanometric recording. The frequency characteristics in this case are illustrated in figures 19, 20, and 21. A full English summary appears on pp 157-164. There are 21 graphs and 7 references, 4 of which are Soviet, 1 Czech, 1 French, and 1 Polish

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Analysis of the First Movements of the Seismic Waves Recorded on
Seismographs POL/26-7-2-4/18

ASSOCIATION: Instytut Geofizyczny Polskiej Akademii Nauk (Insti-
tute of Geophysics of the Polish Academy of Sciences)

SUBMITTED: April 10, 1959

Card 3/3



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P/026/60/008/003/001/004
A224/A026

AUTHORS: Droste, Zofia; Gordejuk, Józef

TITLE: A Simplified Method of Determining the Frequency Characteristic U_1 at $\sigma^2 > 0$

PERIODICAL: Acta Geophysica Polonica, 1960, Vol. 8, No. 3, pp. 200 - 205

TEXT: The authors present a simplified method of determining the frequency characteristic U_1 for the initial impulses of the seismic wave recorded by a seismograph with galvanometric registration, in the case when $\sigma^2 > 0$. Starting with the method described in a previous work (Ref. 1), the authors derive a simplified system of equations and apply them to determine the U_1 characteristic of the SK-58 seismograph having the following constants: $T_1 = 2.2$ sec; $T_2 = 0.32$ sec; $D_1 = 0.70$; $D_2 = 3.00$. There are 2 figures and 4 references: 3 Soviet and 1 Polish.

ASSOCIATION: Institute of Geophysics of the Polish Academy of Sciences

SUBMITTED: December 1, 1959

Card 1/1

P/027/61/000/004/002/002
D218/D308

AUTHORS: Droste, Z. and Zawicki, I.

TITLE: New seismological apparatus

PERIODICAL: Przegląd geofizyczny, no. 4, 1961, 291-292

TEXT: The extended program of seismic studies in Upper Silesia has necessitated the development of special apparatus for measuring the tilt and stresses of the earth's crust. The apparatus was designed and built by I. Zawicki and consists of a tiltmeter and a tensograph. In both cases use is made of the Hall effect. The Hall element is located in a non-uniform magnetic field and any change in its position produces a change in the Hall emf. The two devices have been installed in a mine shaft at a depth of 321 m. ✓

Card 1/1

BOBR-MODRAKOWA, Irena [deceased]. DROSTE, Zofia; HORDEJUK, Jozef

A formula for the determination of earthquake magnitudes from surface waves adopted by the Warsaw Observatory. Acta geophys Pol 9 no. ¹/₂:154-159 '61.

1. Zaklad Geofizyki PAN.

NGUYEN KHAC MAO; DROSTE, Z.; HORCEJUK, J.; TEISSEYRE, R.

Analysis of macroseismic phenomena and dynamic processes in
the earthquake of June 12, 1961 in Vietnam. Acta geophys
Pol 11 no. 1/2: 19-34 '63.

1. Institute of Geophysics, Polish Academy of Sciences,
Warsaw.
2. Phu-Lien Observatory (for NGUYEN KHAC MAO).